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ABSTRACT

Students receiving certificates and Associate of Arts (A.A.) degrees from Cerritos College in spring 1977 (241 A.A. and 48 certificate students) were asked to take the Comparative Guidance and Placement reading test. Forty-four degree and 8 certificate students complied. The A.A. students averaged a reading grade level of 12.6, had an average age of 28, a cumulative grade point average (GPA) of 2.88, and had completed an average of 76.3 cumulative units. The group range of reading level scores ran from 6.5 to 15.5. Comparisons to the total A.A. graduating population showed the sample almost identical in age and GPA, although significantly different in units completed. No relation, however, was found between reading level and units completed, allowing the findings to be extrapolated to the total graduate population. The certificate graduates group was too small for application of findings to the total population, but data reported included an average age of 38, a reading level of 11.1, a GPA of 3.3, and a cumulative units average of 54.6. (RT)

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A STUDY TO ESTIMATE THE READING LEVEL OF A.A. DEGREE RECEIVERS AND CERTIFICATE DEGREE RECEIVERS

PHASE I

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Office of Institutional Research

Cerritos College

Norwalk, California 90650

Spring, 1977

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JC 770 537

A STUDY TO ESTIMATE THE READING LEVEL OF A.A. DEGREE RECEIVERS AND CERTIFICATE DEGREE RECEIVERS

PHASE I

ABSTRACT

Near the end of the Fall 1976 semester, students that were approved to receive an A.A. Degree or Certjficate of Achivement were sent a letter asking them to participate in a reading project. Of the 241 A.A. degree receivers, 44 (19%) came to the Reading Center to take the Comparative Guidance and Placement reading test. Only 8 out of the 48 Certificate receivers took the test. The average reading grade level for the A.A. degree receivers was 12.6. For these students, a significant relationship between reading grade level and grade point average was found to exist ($r = .55$, $p < .001$). Though the number of A.A. degree receivers in the study was small, the evidence indicated that they were fairly representative of the entire A.A. population. Thus, the average reading level of 12.6 was concluded to be a reliable estimate of reading ability, and that 68% of the A.A. degree receivers ranged between 10.4 and 14.7 in reading grade level. The average reading level for the Certificate receivers was 11.1, but the number of students taking the test was too few to produce a meaningful estimate.

A STUDY TO ESTIMATE THE READING LEVEL OF A.A. DEGREE RECEIVER AND CERTIFICATE DEGREE RECEIVERS

SUMMARY OF PHASE I

INTRODUCTION

While the reading grade level of many of the entering students at Cerritos College has been measured, the reading level of graduating A.A. degree students had not been established. This information would be important to members of the Cerritos College Reading Department in establishing a possible criterion level of performance for students enrolled in reading classes. The difference in reading ability between graduates and reading class enrollees, if any, might be one indicator of how much a student must increase reading ability to increase the likelihood of completing an A.A. degree. This data may also provide insights into why students are on academic probation or drop-out of college.

With these goals in mind, it was decided to assess the reading grade level of those students whose application for graduation in January, 1977 had been approved. The scope of the study was broadened to also include those approved to receive a Certificate of Completion in a vocational major. A total of 241 A.A. degree receivers and 48 Certificate receivers were identified. A letter (see Appendix A) was sent to those identified which explained the purpose of the study and requested the receiver to come into the Learning Materials Center to take the reading test. Eight of the A.A. degree letters, and two of the Certificate letters were returned as undeliverable. Approximately one week after the mailing, an attempt was made to contact the students by phone A total of 44 (18.9 percent) of the A.A. degree receivers and eight (14.3 percent) of the Certificate receivers took the reading test.

RESULTS

1. A.A. Degree Receivers

The test administered to the students was the Comparative Guidance and Placement reading exam (CGP) by Educational Testing Service. The mean ($\bar{x}$) reading grade level for A.A. degree receivers was 12.5, with a standard deviation (σ) of 2.2. The minimum level was 7.6 and the maximum was 15.0. This information is presented in Table 1, along with statistics for age ($\bar{x}$ = 28, σ = 9.3), cumulative GPA ($\bar{x}$ = 2.88, σ = .53), and cumulative units completed ($\bar{x}$ = 76.3, σ = 14.6). A frequency distribution of the reading scores are presented in Figure 1. From Figure 1, the median score, which represents the mid-point for all reading scores when they are arranged in order from lowest to the highest, is seen to be a reading grade level of 13.0. The figure also shows that the most frequently occurring score (i.e. the mode) was reading grade level of 14; thirteen persons or 30% received this grade level.

A Pearson Correlation was computed between reading grade level and each of the following variables; age, cumulative GPA, and cumulative units. These correlation coefficients are shown in Table 2. The only significant relation was between reading grade level and GPA, $r = .55$, $p < .001$.

2. Certificate Receivers

In presenting the results for the Certificate receivers, it should be noted that with a sample of only eight persons, the scores cannot be considered to be representative. With this caution in mind, the average reading grade level was 11.1 with a standard deviation of 4.7. The minimum score was 0.9; this probably is a "faked" score, but it was not deleted from the analysis. Table 3 displays the statistics for reading level, age, cumulative GPA, and cumulative units. The mean age was 38; the mean GPA was 3.30, and the mean number of units completed was 54.6.

READING TEST STUDENTS WHO RECEIVED DEGREES FOR FALL 76 21-MAR-77

VARIABLE Grade Level on CGP Reading Test

MEAN	12.584	STD ERROR	0.325	STD DEV	2.155
VARIANCE	4.644	KURTOSIS	-0.556	SKEWNESS	-0.697
RANGE	7.400	MINIMUM	7.600	MAXIMUM	15.000

VALID OBSERVATIONS - 44 MISSING OBSERVATIONS - 0

VARIABLE Age

MEAN	28.068	STD ERROR	1.402	STD DEV	9.302
VARIANCE	86.538	KURTOSIS	-0.402	SKEWNESS	0.811
RANGE	33.000	MINIMUM	19.000	MAXIMUM	52.000

VALID OBSERVATIONS - 44 MISSING OBSERVATIONS - 0

VARIABLE Cumulative GPA

MEAN	2.881	STD ERROR	0.080	STD DEV	0.533
VARIANCE	0.284	KURTOSIS	-1.111	SKEWNESS	0.167
RANGE	1.930	MINIMUM	2.070	MAXIMUM	4.000

VALID OBSERVATIONS - 44 MISSING OBSERVATIONS - 0

VARIABLE Cumulative Units Earned

MEAN	76.320	STD ERROR	2.202	STD DEV	14.608
VARIANCE	213.407	KURTOSIS	3.993	SKEWNESS	1.835
RANGE	78.000	MINIMUM	56.000	MAXIMUM	134.000

VALID OBSERVATIONS - 44 MISSING OBSERVATIONS - 0

Table 1. Statistical characteristics of the A.A. degree receivers taking the reading test.

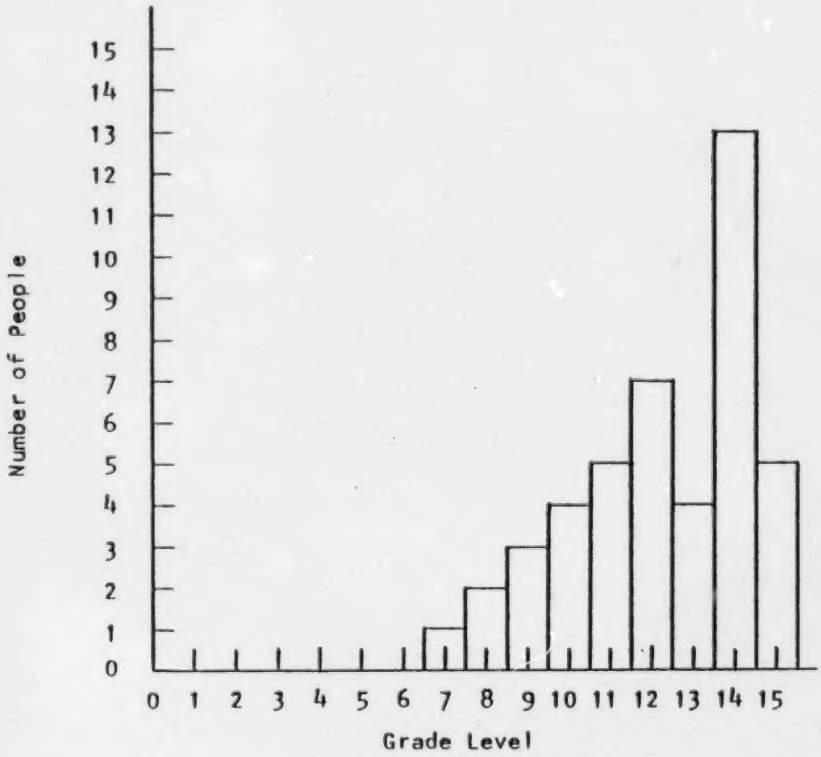

Figure 1. The number of A.A. degree receivers reading at each grade level on the Comparative Guidance Placement Test.

READING TEST STUDENTS WHO RECEIVED DEGREES FOR FALL 76 21-MAR-77

- - - - - - - - - - - - - PEARSON CORRELATION COEFFICIENTS - - - - - - - - - - - - -

	AGE	CUMGPA	CUMUE
LEVEL	-0.0212	0.5521	-0.0764
	(44)	(44)	(44)
	S= .446	S= .001	S= .311

(COEFFICIENT / (CASES) / SIGNIFICANCE) (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)

Table 2. Correlation of grade level score to age, cumulative GPA, and cumulative units.

READING TEST STUDENTS WHO RECEIVED CERTIFICATES FOR FALL 76 21-MAR-77

VARIABLE Grade Level on CGP Reading Test

MEAN	11.125	STD ERROR	1.649	STD DEV	4.665
VARIANCE	21.765	KURTOSIS	1.521	SKEWNESS	-1.585
RANGE	14.100	MINIMUM	0.900	MAXIMUM	15.000

VALID OBSERVATIONS - 8 MISSING OBSERVATIONS - 0

VARIABLE Age

MEAN	38.250	STD ERROR	4.739	STD DEV	13.403
VARIANCE	179.643	KURTOSIS	-0.864	SKEWNESS	-0.231
RANGE	40.000	MINIMUM	17.000	MAXIMUM	57.000

VALID OBSERVATIONS - 8 MISSING OBSERVATIONS - 0

VARIABLE Cumulative GPA

MEAN	3.296	STD ERROR	0.181	STD DEV	0.512
VARIANCE	0.262	KURTOSIS	-1.219	SKEWNESS	0.074
RANGE	1.340	MINIMUM	2.660	MAXIMUM	4.000

VALID OBSERVATIONS - 8 MISSING OBSERVATIONS - 0

VARIABLE Cumulative Units Earned

MEAN	54.563	STD ERROR	6.026	STD DEV	17.045
VARIANCE	290.531	KURTOSIS	-0.078	SKEWNESS	0.877
RANGE	51.000	MINIMUM	36.000	MAXIMUM	87.000

VALID OBSERVATIONS - 8 MISSING OBSERVATIONS - 0

Table 3. Statistical characteristics of the Certificate receivers taking the reading test.

The Pearson Correlation Coefficient between reading level and age was negative and significant, $r = -.64$, $p < .05$. The correlation between reading level and cumulative GPA was also significant, $r = .65$, $p < .05$.

DISCUSSION

The major point of concern in interpreting the current findings is whether tne 44 A.A. degree receivers taking the reading test are representative of the entire population of 241 applicants. While it is impossible to eliminate all doubts about the response group, several indicators suggest that they were fairly representative. The characteristics of the entire 241 A.A. degree applicants for age, cumulative units, and cumulative GPA are presented in Table 4. Comparing Table 4 with Table 1, we can see the sample was virtually identical to the population in terms of age (i.e., 28) and cumulative GPA; the sample being 2.881 versus 2.826 for the population. In the study, reading grade level was moderately related to cumulative GPA ($r = .55$). This finding is also well substanciated in the literature. Therefore, with the two groups having such a close value for GPA, it seems quite reasonable that reading grade level for the respondents and population would also be very close.

The mean cumulative units for the groups were significantly different ($t = 2.49$, $p < .05$). However, based upon the respondents reading grade level scores, there was no significant relation between reading and units completed ($r = -.08$). While the test takers did complete more units (76.3) than the average for the population (69.7), this difference seems of no practical concern in so far as reading grade level measured in this study.

The tentative conclusion of the Phase I Study is that the reading grade level of A.A. degree receivers, as measured on the CGP test, is 12.6. It is further concluded that the reading ability of 68% of the A.A. receivers ranges between 10.4 and 14.7 in grade level.

VARIABLE Age

MEAN	28.012	STD ERROR	0.542	STD DEV	8.416
VARIANCE	70.829	KURTOSIS	-0.139	SKEWNESS	0.879
RANGE	34.000	MINIMUM	18.000	MAXIMUM	52.000

VALID OBSERVATIONS - 241 MISSING OBSERVATIONS - 0

VARIABLE Cumulative Units Earned

MEAN	69.713	STD ERROR	1.131	STD DEV	17.551
VARIANCE	305.034	KURTOSIS	5.675	SKEWNESS	1.941
RANGE	12 ,3	MINIMUM	42.200	MAXIMUM	162,500

VALID OBSERVATIONS - 241 MISSING OBSERVATIONS - 0

VARIABLE Cumulative GPA

MEAN	2.826	STD ERROR	0.030	STD DEV	0.466
VARIANCE	2.217	KURTOSIS	-0.545	SKEWNESS	0.289
RANGE	2.220	MINIMUM	1.780	MAXIMUM	4.000

VALID OBSERVATIONS - 241 MISSING OBSERVATIONS - 0

Table 4. Statistical characteristics for the A.A. degree receiver population.

APPENDIX I

COVER LETTER SENT TO THE STUDENTS

Cerritos College

11110 East Alondra Boulevard, Norwalk, California 90650 (213) 860-2451
Serving Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, Norwalk

December 30, 1976

Dear Graduating Student,

As graduation approaches, there is the usual rush of last minute pressures and demands being made on your time by family, friends, and school interests. No doubt you will be happy when it is all over.

I wonder if we might call upon you to perform one additional task. We in the Reading Department are in need of data regarding the reading levels of students graduating from Cerritos College. This information is important because without it, we do not know what reading levels we should be striving for our reading students to achieve. With it, we can point to those who succeeded in graduating from Cerritos College and plan our program accordingly. No one has thought to collect this data before, so we are making every effort to reach all those who graduate and ask for their help.

All that we ask of you is that you donate 15-30 minutes of your time to read and answer a simple reading comprehension test. For your convenience, we are setting aside the week of January 10-14 for the administration of this test. You may take the test by dropping in to the Reading Center (LC 102) anytime between the hours of 7 a.m. - 10 p.m. and requesting the reading test being given to Cerritos graduates. If you wish, we can also provide you with immediate results. We can also make special arrangements if the times and dates are inadequate.

We are aware of how precious your time is; we hope you can understand how useful this information will be to the Reading Department and Cerritos College.

Thank you for your time and consideration.

Sincerely,

William E. Broderick, PhD

WB/jv

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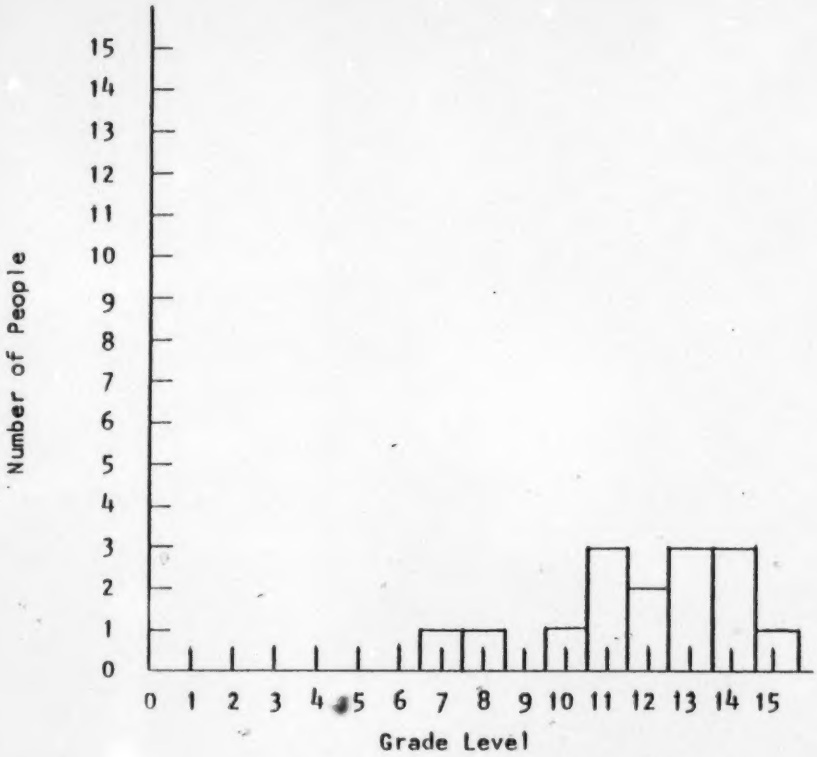

Figure 2. The number of Spring A.A. degree receivers reading at each grade level on the Comparative Guidance Placement Test.